

MISSOURI DEPARTMENT OF NATURAL RESOURCES  
8460 Watson Road St. Louis, Missouri 63119 (314) 849-1313

3.600 St. Louis County  
West Lake Sanitary Landfill

December 1, 1981

Mr. Wm. J. McCullough, President  
West Lake Landfill, Incorporated  
13570 St. Charles Rock Road  
Bridgeton, Missouri 63044

Dear Mr. McCullough:

A biannual inspection was made of the condition and operation of the West Lake Sanitary Landfill, St. Louis County, Missouri on October 19, 1981. The recommendations contained in this report are based on the findings made at the time of the investigation. I trust that you will direct your attention to these findings and that you will proceed to carry out the recommendations presented.

FINDINGS:

1. The landfill operation was nearing completion in the area designated by state permit #118908.
2. Final covering, grading and seeding of all finished landfill sectors has not been completed.
3. The temporary leachate holding lagoon has been placed on-line.
4. A decomposition gas recovery well and collection line has been installed in the quarry landfill and routed to the burner assembly.
5. The perimeter security fence along Taussig Road needs repair.
6. Groundwater monitoring data has been incomplete.

DISCUSSION:

At the time of inspection, efforts were underway to prepare the quarry hole known as Black Diamond Lake for the next phase of landfill expansion under state permit #118909. This included accelerated pumping of the pooled leachate to the approved holding lagoon, and rock blasting for the new haul road. In the meantime, the daily fill operation had progressed to the point where it was at the final elevations called for in the plans approved under permit #118908. Final covering, grading and seeding of this area should be carried out as soon as possible, and site preparations must be completed in the quarry sector prior to commencing fill operations there. Temporary shut-down of disposal operations may become necessary at some point to accomplish these objectives.

Site: West Lake (U2)  
ID #MBD07990932  
Break: 17.8  
Other: 12-1-81  
C.D. SWM?

DEC 7 1981

SOLID WASTE  
MANAGEMENT PROGRAM

Christopher S. Bond Governor  
Fred A. Laiser Director  
St. Louis Regional Office

40241260



SUPERFUND RECORDS

DNR 0081

Page Two  
3.600 St. Louis County  
West Lake Sanitary Landfill  
December 1, 1981

As pointed out in past inspection reports, all previously filled landfill sectors need to be stabilized to eliminate areas of storm water ponding and erosion. This includes bringing final soil cover up to the required 2-foot depth at all points, ensuring that all grades are set at a minimum 2% to facilitate runoff (but not exceeding a 3:1 slope), and seeding to establish good vegetative growth. Such work needs to be done to complete the areas delineated under permits #118906 and #118903.

Leachate was being pumped from the quarry pond to the new containment lagoon during the inspection and approximately 10 feet of freeboard remained on the berm at that time. Work was also commencing on erection of the security fence around the lagoon. The inspector has since been advised that lagoon capacity has now been reached, and the return pump and piping is now installed and operating so as to convey the contents to the treatment plant on a periodic basis.

A gas recovery well has been placed adjacent to the new leachate collection well in the quarry landfill. Collected decomposition gases are then piped to the previously installed burner assembly situated at the invert to the perimeter storm sewer at the south end of Taussig Road. This was done as part of a continuing effort to identify and eliminate odor sources around the site at large; the operator is encouraged to continue such efforts.

The perimeter fence along the east quarry rim was taken down near the south end of Tassig Road to allow access to the gas flare-off assembly for maintenance work. The portion of the fence in question should be restored immediately as a matter of public protection.

The past several reports on groundwater sampling/analysis have indicated that wells #1 and #3 are no longer functional, resulting in incomplete data on groundwater quality around the West Lake site. These wells should be either repaired or replaced as necessary. Staff of the Waste Management Program in Jefferson City will be addressing the overall monitoring issue in more detail in the near future.

#### RECOMMENDATIONS:

1. Complete current fill operations in the area delineated by permit #118908. Do not exceed the fill limits specified in the approved plans.
2. Complete all necessary site preparations prior to start-up of landfilling in the quarry pit designated by permit #118909. This includes removal of all remaining pooled leachate, initial construction of the clay liner along the east wall, and installation of the bottom liner and leachate collection well.
3. Complete final covering, grading and seeding of all finished landfill sectors.

Page Three  
3.600 St. Louis County  
West Lake Sanitary Landfill  
December 1, 1981

4. Continue periodic pump-down of the holding lagoon contents to the on-site treatment plant, as allowed by leachate collection well pump rates.
5. Erect/restore the security fences around the lagoon and quarry rim.
6. Continue operation of the decomposition gas recovery/burner system. Continue other odor control strategies as appropriate.
7. Repair/replace the disfunctional groundwater monitoring wells.

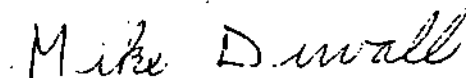
Should you have any questions concerning this investigation, please contact Mike Duvall at the St. Louis Regional Office.

APPROVED:



F. Donald Maddox, P.E.  
Acting Regional Administrator  
St. Louis Regional Office

SUBMITTED BY:



Mike Duvall  
Chief, Waste Management  
St. Louis Regional Office

FDM/MD/jk

Enclosure

cc Reitz and Jens, Inc.

St. Louis County Department of Community Health and Medical Care  
City of Bridgeton

✓ Central Office, Waste Management Program

Inspection ☒  
Reinspection ☐

MISSOURI DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF ENVIRONMENTAL QUALITY  
DEMOLITION LANDFILL SURVEILLANCE RECORD

Date: 10-19-81 Days/Week Open: 6  
Name of Demolition Landfill: West Lake Landfill, Inc.  
Permit No: 218903 County: St. Louis  
Owner: West Lake L.F., Inc. Operator: Mrs. Vernon Fehr  
Address: Rte. 1, P.O. Box 206 Address: 13570 St. Chas. Rock Rd.  
Bridgeton, MO 63042 ← "  
Phone No.: (314) 739 1122 Phone No.: ← "

DEC 7 1981

I. Special Conditions and Approved Modifications

- A. Are there any special conditions or approved modifications of the subsections of the rules and regulations? (e.g. impermeable barrier, limited excavation to weekly cover requirements) SOLID WASTE  
MANAGEMENT  
PROGRAM  
Yes        No   X
- B. Is the demolition landfill operation in compliance with the special conditions or approved modifications? (If "No," describe violations under "REMARKS.")  
Yes        No

II. Check Types of Waste Accepted

	INDICATED ON PERMIT APPLICATION	REPORTED BY OPERATOR	AS OBSERVED
Demolition and construction waste .....	<u>  X  </u>	<u>  X  </u>	<u>  X  </u>
Brush and untreated wood waste .....	<u>  X  </u>	<u>  X  </u>	
Tires .....			
Inert Plastics .....	<u>  X  </u>		
OTHER WASTES (SPECIFY)			

III. Remaining Life of Landfill

- A. Estimated amount of solid waste coming through gate.  
loads 1000 yds/wk \_\_\_\_\_ tons/wk
- B. Estimated volume of remaining landfill covered by approved engineering plans.  
\_\_\_\_\_ acre feet   1   years

INSPECTION FORM DISTRIBUTION LIST	
Owner	<u>  X  </u>
Operator	<u>  X  </u>
City	
County Court	
Consulting Engineer	<u>  X  </u>
Solid Waste Program	<u>  X  </u>
Regional Office File	<u>  X  </u>
Others	<u>Bridgeton</u> <u>- St. L. Co. H.D.</u>

IV. Satisfactory Compliance Subsections Regulations 80-4.010

Check all subsections: SAT – Satisfactory; UNS – Unsatisfactory. (If necessary describe "UNS" violations under "Remarks.")

SUB-SECTION NUMBER	SATISFACTORY COMPLIANCE OPERATING PROCEDURE	SAT	UNS
<b>(2) SOLID WASTE ACCEPTED</b>			
(2)(C)1	Routine sanitary landfill techniques of spreading and compacting solid waste shall be used as much as practicable to dispose of solid waste in a demolition landfill.	X	
(2)(C)2	A list of wastes to be accepted shall be displayed prominently at the site entrance.	X	
<b>(3) SOLID WASTE EXCLUDED</b>			
(3)(C)1	A responsible supervisor shall be present at the disposal area at all times when the area is open to receive waste.	X	
(3)(C)2	Excluded wastes deposited removed to an approved disposal site.	X	
<b>(4) SITE SELECTION</b>			
(4)(C)	Site accessible by all-weather roads.	X	
<b>(6) WATER QUALITY</b>			
(6)(C)1	Surface water courses and runoff satisfactorily diverted from the landfill. Demolition landfill construction and grading to promote rapid surface water runoff without excessive erosion.		?
(6)(C)2	Decomposable solid wastes deposited above predicted maximum water table.	X	
<b>(7) AIR QUALITY</b>			
(7)(C)	No open burning without written permission from the Air Pollution Control Program.	X	
<b>(8) GAS CONTROL</b>			
(8)(C)1	Decomposition gases adequately vented to prevent danger to occupants of adjacent property.		+
(8)(C)2	Gases vented to prohibit explosive or toxic accumulations.		+
<b>(9) VECTORS</b>			
(9)(C)	Vector control programs implemented when necessary.		+
<b>(10) AESTHETICS</b>			
(10)(C)1	Litter collected and compacted daily into the cell being utilized.		?
(10)(C)2	Wastes easily moved by wind covered as necessary.		X
(10)(C)3	On-site vegetation and natural windbreaks being utilized for litter control and aesthetic appearance.		?

SUB-SECTION NUMBER	SATISFACTORY COMPLIANCE OPERATING PROCEDURE	SAT	UNS
<b>(10) AESTHETICS (continued)</b>			
(10)(C)4	Salvaged materials removed daily or stored in aesthetically acceptable manner.		X
<b>(11) COVER MATERIAL</b>			
(11)(C)1	Twelve (12) inches compacted soil cover material applied at least once every seven calendar days.		X
(11)(C)2	Final cover of at least two (2) feet compacted soil applied on all completed areas.		+
<b>(12) COMPACTION</b>			
(12)(C)1A	Solid waste spread in layers not to exceed two (2) feet as much as practical.		X
(12)(C)1B	Solid waste compacted to smallest practical volume.		X
(12)(C)1C	Cover material compacted as much as practical.		X
(12)(C)2	Equipment available and operated to spread and compact the solid waste as received or at least when the accumulated waste reaches 200 cubic yards.		X
(12)(C)3	No solid waste disposed of in water where the water interfered with spreading and compacting or where the water is causing a mosquito problem.		X
<b>(13) SAFETY</b>			
(13)(C)1	Fire extinguishers provided on all equipment.		X
(13)(C)2	Provisions for extinguishing fires in waste, equipment or structures.		X
(13)(C)3	Scavenging prohibited.		X
(13)(C)4	Controlled access limited to operating hours.		X
(13)(C)5	Traffic control signs provided.		+
(13)(C)6	Dust control adequate.		+
<b>(14) RECORDS</b>			
(14)(C)1A	Records of complaints and major problems.		+
(14)(C)1B	Records of dates of cover material application.		X
(14)(C)1C	Records of vector control efforts.		+
(14)(C)1D	Records of dust and litter control efforts.		X
(14)(C)1E	Records of quantity of waste received.		X
(14)(C)2	Records of location of general types of wastes and depth of fill.		+

V. Operation Proceeding in Accordance With Approved Engineer Plans? (If "No," describe violations under "REMARKS.")

X Yes        No

REMARKS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(Attach additional sheets as necessary.)

BY M. D. Small  
Signature of Investigator

MISSOURI-DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF ENVIRONMENTAL QUALITY

BI -  
Visual Inspection ☒  
Inspection ☐

SANITARY LANDFILL SURVEILLANCE RECORD

Date: 10-19-81 Days/Week Open: 0  
Name of Sanitary Landfill: West Lake Landfill, Inc.  
Permit No.: 118906, 118908, 118909, 118909 County: St. Louis  
Owner: West Lake S.L.F., Inc. Operator: Mr. Vernon Fehr  
Address: Rte. 1, P.O. Box 206 Address: 13570 St. Charles Rock Rd.  
Bridgeton, MO 63042 11  
(314) 739 1122 11

I. Special Conditions and Approved Modifications

- A. Are there any special conditions or approved modifications of the satisfactory compliance subsections of the rules and regulations? (e.g. impermeable barrier, limited excavation, exceptions to daily cover requirements)  
X Yes      No
- B. Is the sanitary landfill operation in compliance with the special conditions or approved modifications? (If "No," describe violations under "REMARKS.")  
X Yes      No

II. Check Types of Waste Accepted

	INDICATED ON PERMIT APPLICATION	REPORTED BY OPERATOR	AS OBSERVED
Municipal solid waste	<u>X</u>	<u>X</u>	<u>X</u>
Bulky waste			
Dead animals			
Incinerator residue			
Demolition and construction waste	<u>X</u>	<u>X</u>	<u>X</u>
Brush and untreated wood waste			
Septic tank pumpings			
Wastewater treatment plant sludges			
OTHER SLUDGES (SPECIFY)			
LIQUIDS (SPECIFY)			
<u>WWTP sludge from Western Litter Plant</u>		<u>X</u>	
INDUSTRIAL PROCESS WASTES (SPECIFY)			
<u>- under Dept. approval</u>			
HAZARDOUS WASTES (SPECIFY)			
OTHER WASTES (SPECIFY)			

III. Remaining Life of Landfill

- A. Estimated amount of solid waste coming through gate.  
Compacted loads 15,000 yds/wk      tons/wk  
Noncompacted loads 300 yds/wk      tons/wk
- B. Estimated volume of remaining landfill covered by approved engineering plans.  
     acre feet 4.5 years

INSPECTION FORM  
DISTRIBUTION LIST

Owner X  
Operator X  
City       
County Court       
Consulting Engineer X  
Solid Waste Program X  
Regional Office File X  
Others City of Bridgeton  
- St. L. Co. Dept. Comm.  
Health & Med. Care

IV. Satisfactory Compliance Subsections Regulations 80-3.010

Check all sub

"Remarks.")

SAT — Satisfactory; UNS — Unsatisfactory. (If necessary descr

"UNS" violations under

SUBSECTION NUMBER	SATISFACTORY COMPLIANCE OPERATING PROCEDURE	SAT	UNS
(2) SOLID WASTE ACCEPTED			
(2)(C)2	Bulky solid waste crushed on solid ground and pushed onto working face near bottom of the cell.		+
(2)(C)3	Small dead animals covered immediately with soil or solid waste. Large dead animals placed in pit and covered with four feet compacted soil.		+
(2)(C)4	Disposal of dewatered sludges on working face along with municipal solid waste.		+
(2)(C)5	Incinerator and air pollution control residues prevented from becoming airborne.		+
(3) SOLID WASTE EXCLUDED			
(3)(C)1	No unpermitted waste accepted.	X	
(3)(C)2	Sign posted at entrance listing excluded wastes.	X	
(4) SITE SELECTION			
(4)(C)1	Site accessible in all weather conditions. Temporary roads provided for delivery to working face.	X	rough
(6) WATER QUALITY			
(6)(C)1	Surface water courses and runoff properly diverted from the landfill. Sanitary landfill construction and grading to promote rapid surface water runoff without excessive erosion.		X
(6)(C)2	Leachate collection and treatment systems utilized where necessary to protect ground and surface water resources.	X	
(6)(C)3	No ground or surface water in contact with solid waste.		R.
(7) AIR QUALITY			
(7)(C)	No open burning without written permission of the proper air pollution agency and the Division.	X	
(8) GAS CONTROL			
(8)(C)	Implementing decomposition gas control plan as necessary to prevent problems.	X	
(9) VECTORS			
(9)(C)	Vector control programs implemented when necessary to prevent or rectify vector problems.		+
(10) AESTHETICS			
(10)(C)1	Litter control devices utilized near working face and elsewhere as needed. Litter collected from fences, and the ground surface, and incorporated into the daily cell at the end of each day or containerized.		R.
(10)(C)2	Wastes easily moved by wind covered as necessary to prevent their becoming airborne and scattered.	X	
(10)(C)3	On-site vegetation and natural windbreaks being utilized to improve appearance and operation of the sanitary landfill.		R.

SUBSECTION NUMBER	SATISFACTORY COMPLIANCE OPERATING PROCEDURE	SAT	UNS
(10) AESTHETICS (Continued)			
(10)(C)4	Salvaged materials removed daily or stored in aesthetically acceptable containers or enclosures.	X	
(11) COVER MATERIAL			
(11)(C)1	Daily cover applied regardless of weather in not less than a six inch layer. Cover material available in all weather conditions.	X	
(11)(C)2	Intermediate cover applied to all areas idle for more than 60 days in a layer not less than one foot after compaction.		R?
(11)(C)3	Final cover applied on each area as completed in a layer not less than two feet after compaction.		R.
(12) COMPACTION			
(12)(C)1	Adequate equipment on-site, operated daily.	X	
(12)(C)1A	Solid waste spread in layers not to exceed two feet and confined to smallest practical area.	X	
(12)(C)1B	Wastes compacted to smallest practical volume.	X	
(12)(C)1C	Cover material compacted as much as practical.	X	
(12)(C)2	Preventive maintenance performed.	X	
(12)(C)3	Daily task operating manual provided.	X	
(13) SAFETY			
(13)(C)1	Fire extinguishers provided on oil equipment.	X	
(13)(C)2	Provisions for extinguishing fires in waste, equipment, and structures.	X	
(13)(C)3	Communication equipment available.	X	
(13)(C)4	Scavenging prohibited.	X	
(13)(C)5	Controlled access to site by established roadways and limited to hours when operating personnel are on duty.	X	
(13)(C)6	Traffic controlled and directed to designated disposing points.	X	
(13)(C)7	Site dust controlled for safety purposes and to prevent nuisances.	X	
(14) RECORDS			
(14)(C)1A	Records of major problems and complaints.	X	
(14)(C)1B	Monitoring record maintained. a. leachate sampling and analyses. b. gas sampling and analyses. c. ground and surface water analyses.	X	R.
(14)(C)1C	Records of vector control efforts.	X	
(14)(C)1D	Records of dust and litter control efforts.	X	
(14)(C)1E	Records of quantity of waste handled.	X	
(14)(C)1F	Records of description, sources, and volume of special wastes listed in Subsection (3)(A).	X	+

V. Operation Proceeding in Accordance with Approved Engineering Plans? (If "NO," describe violations under "Remarks.")

X Yes          No

REMARKS - Surface water ponding in a gap near the NE section by collection well 'A'. Intermediate cover rough, with minor ponding & exposed wastes along SW sector.  
- Leachate being pumped from B.D.L. (quarry) to holding lagoon  
- Additional line installed to route decomposit gas from a new recovery well to the burner assembly along Tausseig

(Attach additional sheets as necessary.)

BY M. Duvall  
SIGNATURE OF INVESTIGATOR